

REMARKS

Claims 1-46 are all the claims pending in the application. Claims 13-23 and 33-43 were withdrawn from consideration pursuant to an election of species requirement. This Amendment amends claims 1, 27, and 30, cancels claims 47 and 48, and addresses each point of rejection raised by the Examiner. Favorable reconsideration is respectfully requested.

In the Advisory Action, the Examiner asserts that “the combination of Takano and Sonoda teaches Applicant’s invention as claimed. Applicant’s arguments are directed to a statement of motivation which was not presented by the rejection and not relied upon by the Examiner; therefore, the argument is moot.”

Applicant’s argument was directed to the merits of combining elements of the two references, as suggested by the Examiner, because the Examiner’s rejection failed to take into consideration the actual objectives and teachings of the Sonoda reference.

The Examiner alleges two “motivations”:

- 1) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the semiconductor laser element of Takano in the semiconductor laser module of Sonoda, since Sonoda teaches the use of any semiconductor laser element and Takano teaches a semiconductor laser element with advantages over conventional semiconductor laser element <sic>.
- 2) Also it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Most if not all inventions arise from a combination of old elements. *In re Kotzab*, 55 USPQ2d at 1316 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *See id.*

Regarding the Examiner's first "motivation," simply finding elements in references and combining them to make a rejection because one element (*e.g.*, Takano's laser module) has advantages over another falls short of a proper basis for rejection, as it fails to take into account the basic principles under which the primary reference's construction (Sonoda) was designed to operate. *See* MPEP 2143.01. The structure of Sonoda exists to frequency lock the oscillation of a laser 10 to a wavelength conversion element 15. While the wavelength conversion element 10 of Sonoda might be used with the laser of Takano, there is no motivation to utilize the wavelength selection optical element of Sonoda with such a structure, since the laser of Takano is internally frequency locked. In other words, the optics in the structure of Sonoda exists to adjustably select an oscillation wavelength of the laser for coupling to the wavelength conversion element 15. With the Examiner's combination, this fundamental purpose of Sonoda is lost, since Takano is necessarily internally locked. Therefore, even if one were to use the laser of Takano with the wavelength conversion element 10 of Sonoda, the wavelength selection element of Sonoda would not be used, since the wavelength is internally selected by Takano's laser. This internal selection is essential to the Takano laser, since the DFB structure which locks the

oscillation also prevents oscillation from occurring in the carrier accumulation layers.

Accordingly, as the Examiner's "motivation" to combine alters the principle of operation of Sonoda by eliminating the adjustability of the laser oscillation wavelength to match the wavelength conversion element 15, which is a basic purpose of Sonoda, the rejection is improper.

The Examiner's second "motivation" to combine is likewise improper. The laser of Takano is not suitable for the device of Sonoda, since it is internally frequency locked, whereas Sonoda discloses an external resonator structure to adjustably select the frequency of oscillation of the laser for the wavelength conversion element.

Additionally, Applicant has amended claim 1 to incorporate the subject matter of claim 47, has amended claim 30 to incorporate the subject matter of claim 48, and also amended claim 27. As amended, the claims further describe the quantum well sublayers of the laser. The laser of Takano fails to meet or suggest the sublayers as claimed, at least because the carrier accumulation sublayers in Takano, which do not electro-luminesce, do not contribute to an optical wavelength range of an overall gain spectrum of the laser. Reconsideration and withdrawal of the § 103(a) rejections are requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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